

## BIOLOGICAL SOCIETY OF WASHINGTON

## SEVEN NEW AMERICAN MILLIPEDES

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Representatives of the seven new species of millipeds here named and diagnosed were found in going over several small collections submitted to me for identification by Drs. V. E. Shelford, J. M. Linsdale and P. W. Fattig. The types of the new forms are retained in the author's collection.

## STRIARIIDAE

*Striaria carmela*, new species

Figs. 1 and 2

A small form like *S. nana* but differing from that species conspicuously in the details of the anterior gonopods which are trilobed instead of bilobed, with the posterior or inferior lobe decidedly larger than the distal one instead of the reverse, and the distal lobe not incised apically. The long, caudally directed blade proximad of these lobes which is so pronounced in *nana* not present in *carmela*, being replaced by a simple acute angle or process as shown in the figure.

A brown form with a narrow yellow stripe on each side at the level of the pores. Also showing a median dorsal pale line.

Collum with the usual ten crests.

The more anterior tergites with well developed ventral crests but these fade out on later segments well in front of the middle of the body.

First legs of male enlarged as usual. None of joints of second legs in male bearing a special process or lobe.

Diameter, about .8 mm.

Locality.—California: Monterey Co., Hastings Reservation. March 24, 1946. A male and female taken under oak leaves by J. M. Linsdale.

## CASEYIDAE

*Caseya dynotypa*, new species

Differing from other California species in having a rather broad median dorsal yellow stripe which embraces on each tergite a trapeziform light brown area. Dorsum each side of the yellow stripe nearly black; sides lighter brown, the pigment in longitudinal brown lines or stripes. On each side a series of vertically elongate light spots.

Length, 15 mm.

Locality.—California: Monterey Co., Hastings Reservation. One female taken by Dr. J. M. Linsdale February 14, 1946.

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LEPTODESMIDAE

*Kepolydesmus mimus*, new species

Fig. 3

Dorsum of the usual reddish brown color.

Antennae long and slender, subfiliform.

Tergites with transverse sulcus distinct but the tubercles obsolete or but weakly indicated. Keels high, their lateral serrulations, of which there are 3 to 5, minute or obsolete, the one at anterior corner usually more distinct than the others.

First two pairs of legs of the male reduced as in *K. anderisus*.

Gonopods of the male as shown in the figure (Fig. 3).

Width about 32 mm.

Locality.—Washington: Carson, Martha Creek. Several males and females, which had dried out after preservation, were taken on the flood plain. Collected July 10, 1945, by Dr. V. E. Shelford.

In structure of the male gonopods close to the generotype, *K. anderisus* Chamberlin of Idaho, but differing especially in the details of the median branch. In this the hook seems to be relatively smaller and to lie more transversely in *anderisus*, with the blade beyond its base shorter and showing a transverse furrow.

XYSTODESMIDAE

*Dynoria parvior*, new species

Fig. 4

A much smaller form than *D. icana* with dorsum black, or nearly so, the keels and a median dorsal series of dots yellow, the latter obscure in posterior region.

The keels relatively broad as in *D. icana*.

Gonopods of male of the same general form as those of the generotype but distinct in details; e.g. the proximal process of the telopodite is stouter and curved instead of straight and the terminal tooth is more slender. See further figure 4.

Length, about 18-19 mm; width, 7 mm.

Locality.—Georgia: Neel Gap. Four specimens taken June 23, 1946 by P. W. Fattig.

ATOPETHOLIDAE

*Toltecolus chihuanus*, new species

Figs. 5-7

Color a dark, olive gray, with dark annuli about caudal borders of metazonites. Legs dark chestnut.

Clypeal foveolae 5-5. Eyes very widely separated; ocelli arranged in 8 longitudinal series and the same number of transverse series.

Collum strongly narrowed down each side as usual, with the anterior margin conspicuously incurved at lower end, the elevation decreasing dorsad, the elevated border set off by a sulcus. (Fig. 5).

Segments smooth above. A true segmental sulcus absent above, though below indicated by a faint line which bends forward angularly at level of pore which it touches. Segments strongly striate below. Anal tergite rounded behind, the surface over caudal portion irregularly rugose.

In the male the first two pairs of legs are thickened and have the claws strongly enlarged. The claws of the following three pairs of legs also have enlarged claws but these decreasing from third pair to fifth.

Coxal processes of third legs of male extending back over bases of fourth legs, subcylindrical but with ventral face flattened or concave, the distal ends abruptly uncate.

The gonopods are as shown in the figures. Anterior sternite subquadrate; firmly seated in the shallow excavation on anterior face of gonopods.

Number of segments, in the male holotype, 51.

Diameter, 4.8 mm.

Locality.—Mexico: Chihuahua: Chihuahua City, Saltbush-acacia-grass complex. One male, July 23, 1944. V. E. Shelford, collector.

In *T. garcianus* Chamberlin, the generotype, the claws of the third, fourth and fifth pairs of legs are reduced instead of being moderately enlarged as in the present species.

#### SPIROSTREPTIDAE

##### *Orthoporus chihuuanus*, new species

Light brown, with strongly developed annuli of chestnut color. Legs dark, chocolate colored.

Eyes transversely elongate, triangular, with apex directed mesad; separated by about once and a half their transverse length.

Collum with lateral margin straight, or nearly so, over middle portion; with three major striae above the margining one and typically two short ones between the topmost of these and the one next ventrad of it.

Tergites appearing smooth and shining, although under sufficient magnification showing numerous minute punctae. Repugnatorial pore typically from once and a half to twice its diameter from the sulcus.

Last tergite obtusely angular behind; surface densely finely punctate.

Number of segments, 70.

Diameter, 8.8 mm.

Locality.—Chihuahua; Chihuahua City. One female taken July 2, 1944. Dr. V. E. Shelford, collector.

In the absence of a male it is impossible to speak definitely of the relationships of this form. Superficially it suggests *O. entomacis* Chamberlin of Arizona, but it is a substantially larger form with differences in the sulci of the collum that seem to be specific.

##### *Orthoporus producens*, new species

#### Fig. 8

Chocolate colored to chestnut with prozonites in some degree lighter. Legs chocolate colored. Collum with a lighter reddish yellow transverse band behind the anterior border which is connected by a median line with a similar but shorter band in front of posterior border.

Ocelli in five transverse series which together form a narrow triangle of which the apex is mesad. The eyes separated by twice their transverse length.

The collum is characterized by having the lower anterior corner more or less produced as shown in the figure (Fig. 8) which also shows the typical arrangement of the sulci.

Surface of tergites under magnification showing the usual minute, dense punctae. Repugnatorial pore mostly from 3 to 4 times its diameter from the sulcus which is moderately widely excurved opposite it. Sulcus sharply impressed throughout. Anal tergite with median angle obtuse, rounded; posterior area set off by a shallow transverse sulcus; punctae coarser than those of other tergites.

Number of segments, 68-69.

Diameter, 7 mm.

Locality.—Arizona: Benson. Two females taken July 21, 1944. V. E. Shelford, Coll.

The sulcus of the somites much more sharply impressed than in *O. chihuanus*. It would seem to be readily distinguishable by the form of the lower end of the collum.

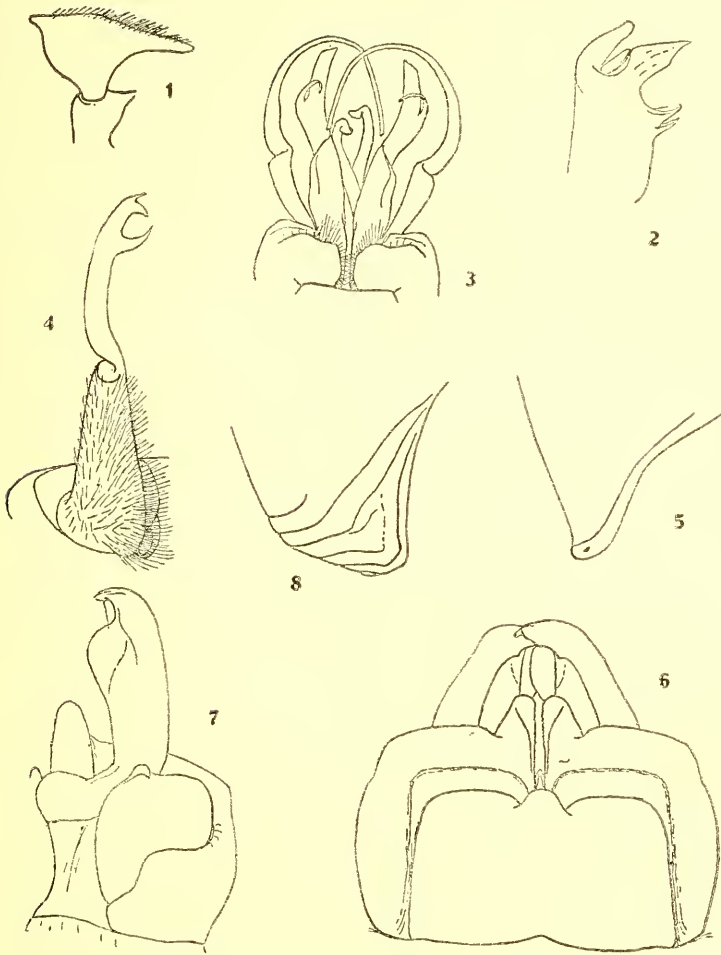


Plate I. New American Millipeds

Explanation of Figures

- Striaria carmelo*, n. sp. Fig. 1. Right posterior gonopod of male. Fig. 2. Right anterior gonopod of male, lateral view.
- Kepolydesmus mimus*, n. sp. Fig. 3. Gonopods of male, anterior view.
- Dynoria parvior*, n. sp. Fig. 4. Gonopod of male.
- Toltecolus chihuanus*, n. sp. Fig. 5. Lower end of collum, right side.
- Fig. 6. Gonopods of male, anterior view. Fig. 7. Left gonopods of male, caudal aspect.
- Orthoporus producens*, n. sp. Fig. 8. Lower end of collum, viewed from right side.